UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,442	01/18/2002	Sundeep Chandhoke	5150-58200	3493

35690 7590 10/20/2006

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
700 LAVACA, SUITE 800
AUSTIN, TX 78701

EXAMINER	
HANNE, SARA M	

ART UNIT	PAPER NUMBER
2179	

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/051,442	CHANDHOKE ET AL.	
	Examiner	Art Unit	
	Sara M. Hanne	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2006*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-24,26-30,32-40,42-46,48-54,57-62 and 66-81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 6-24, 26-30, 32-40, 42-46, 48-54, 57-62 and 66-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the received on July 24, 2006. Claims 1-4, 6-24, 26-30, 32-40, 42-46, 48-54, 57-62 and 66-81 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 53-54, 57-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Blowers et al., US Patent 6298474, herinafter Blowers.

As in Claim 53, Blowers teaches a computer-implemented method, memory medium and system for creating a prototype that includes machine vision, and data acquisition (DAQ) functionality, the method comprising: displaying a graphical user interface (GUI) that provides GUI access to a set of operations (Col. 8, line 61 et seq.), wherein the set of operations includes, one or more machine vision operations, and one or more DAQ operations; creating a sequence of operations, including operations in the sequence in response to user input selecting each operation in the operations from the GUI (Col. 3, lines 20-45), the plurality of operations are included in the sequence without receiving user input specifying program code for performing the plurality of

operations (Col. 3, line 64 et seq.), wherein the operations included in the sequence includes a machine vision operation and a data acquisition operation (Col. 8, lines 9-19), wherein the data acquisition operation is operable to control a DAQ measurement device to acquire measurement data of a device (Col. 11, line 65 et seq. and Caliper tool 63) under test (computer sensor for Caliper tool 63) and storing information representing the sequence of operations in a data structure (Col. 13, lines 10-54), wherein the sequence of operations comprises the prototype (Figure 6 and corresponding text).

As in Claim 54, Blowers teaches accessing the data structure to determine operations in the sequence; determining software routines to execute in order to perform the operations in the sequence and executing the software routines (Col. 8, line 61 et seq.).

As in Claim 57, Blowers teaches wherein the prototype is operable to perform acquiring images of the device under test, analyze the acquired images of the device under test; and acquiring measurement data of the device under test (Col. 11, line 65 et seq.).

As in Claim 58, Blowers teaches the prototype is operable control an image acquisition device to acquire an image of the device under test; and control a data acquisition measurement device to acquire measurement data of the device under test (Col. 11, line 65 et seq.).

As in Claim 59, Blowers teaches performing the sequence of operations by executing software rountines in order to perform each operation in the sequence (Col. 4, line 64 et seq.).

As in Claim 60, Blowers teaches automatically generating a graphical program based on the sequence of operations executable to perform the sequence of operations, a plurality of interconnected nodes ("developing a graphical, control flow structure such as a tree structure", Col. 3, lines 15-16) that visually indicate functionality of the graphical program (Col. 8, line 49 et seq.) and automatically including the nodes without specifying user input of the nodes (Col. 3). (Col. 8, line 61 et seq.).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4, 6-20, 24, 26-30, 32-40, 42-46, 48-52, 61-62, 66-69, 71-73, 76 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blowers et al., US Patent 6298474, hereinafter Blowers, and further in view of Weinhofer, US Patent 6442442.

As in Claims 1, 37, 43-45 and 61, Blowers teaches a computer-implemented method, memory medium and system for creating a prototype that includes machine vision, and data acquisition (DAQ) functionality, the method comprising: displaying a

graphical user interface (GUI) that provides GUI access to a set of operations (Col. 8, line 61 et seq.), wherein the set of operations includes, one or more machine vision operations, and one or more DAQ operations; creating a sequence of operations, including operations in the sequence in response to user input selecting each operation in the operations from the GUI (Col. 3, lines 20-45), the plurality of operations are included in the sequence without receiving user input specifying program code for performing the plurality of operations (Col. 3, line 64 et seq.), wherein the operations included in the sequence includes a machine vision operation and a data acquisition operation (Col. 8, lines 9-19), wherein the data acquisition operation is operable to control a DAQ measurement device to acquire measurement data of a device (Col. 11, line 65 et seq. and Caliper tool 63) under test (computer sensor for Caliper tool 63) and storing information representing the sequence of operations in a data structure (Col. 13, lines 10-54), wherein the sequence of operations comprises the prototype (Figure 6 and corresponding text) an the processor is operable to execute the sequence of operations (Figure 3 and corresponding text). While Blowers teaches machine vision and data acquisition operations controlled by a GUI through a user specified sequence of operations in a data structure, they fail to show the motion control functionality with a motion control operation as recited in the claims. In the same field of the invention, Weinhofer teaches a graphical interface for creating a prototype through a specified sequence of operations in a data structure similar to that of Blowers. In addition, Weinhofer further teaches motion control operation and functionality through graphical programming (Col. 3, line 63 et seq. and Fig. 3). It would have been obvious to one of

ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the time the invention was made, to modify the machine vision and data acquisition operations and functionality controlled by a GUI through a user specified sequence of operations in a data structure taught by Blowers to include the motion control operation and functionality of Weinhofer, in order to obtain a graphical programming interface for machine vision, data acquisition and motion control. One would have been motivated to make such a combination because an all-purpose graphical automotive controller would have been obtained, as taught by Weinhofer.

As in Claims 2, 38, 46 and 62, Blowers teaches accessing the data structure to determine operations in the sequence and executing the software routines (Col. 8, line 61 et seq.).

As in Claims 3, 35 and 39, Blowers teaches receiving user input to the graphical user interface specifying a first parameter value for a first operation in the sequence wherein storing the information representing the sequence of operations in the data structure comprises storing the first parameter value in the data structure; wherein the method further comprises executing software routines corresponding to operations in the sequence, wherein executing comprises executing a first software routine corresponding to the first operation, passing the first parameter value to the first software routine (Col. 9, line 7 et seq.).

As in Claims 4 and 40, Blowers teaches the information representing the sequence of operations in the data structure does not comprise programming code (Col. 3, line 64 et seq.).

As in Claim 6, Blowers teaches wherein the machine vision operation in the sequence is operable to perform one of acquiring image of the device under test, or analyze the acquired image of the device under test; and acquiring measurement data from a DAQ device (Col. 11, line 65 et seq. and Caliper tool 63).

As in Claims 7-8, 30, 42, 48-49, Blowers teaches wherein the machine vision operation in the sequence is operable to perform one of acquiring image of the device under test, or analyze the acquired image of the device under test; and acquiring measurement data from a DAQ device (Col. 11, line 65 et seq. and Caliper tool 63). While Blowers teaches machine vision and data acquisition operations controlled by a GUI through a user specified sequence of operations in a data structure, they fail to show the motion control functionality with a motion control operation as recited in the claims. In the same field of the invention, Weinhofer teaches a graphical interface for creating a prototype through a specified sequence of operations in a data structure similar to that of Blowers. In addition, Weinhofer further teaches a motion control operation to move a device under test (Col. 3, line 63 et seq. and Fig. 3). It would have been obvious to one of ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the time the invention was made, to modify the machine vision and data acquisition operations and functionality controlled by a GUI through a user specified sequence of operations in a data structure taught by Blowers to include the motion control operation and functionality of Weinhofer, in order to obtain a graphical programming interface for machine vision, data acquisition and motion control. One

would have been motivated to make such a combination because an all-purpose graphical automotive controller would have been obtained, as taught by Weinhofer.

As in Claims 9, 36, 50 and 66, wherein the prototype is operable control an image acquisition device to acquire an image of the device under test; and control a data acquisition measurement device to acquire the measurement data of the device under test(Col. 11, line 65 et seq.) and all of the limitations of Claim 1 *supra*. While Blowers teaches machine vision and data acquisition operations controlled by a GUI through a user specified sequence of operations in a data structure, they fail to show the motion control functionality with a motion control operation to move an the device under test as recited in the claims. In the same field of the invention, Weinhofer teaches a graphical interface for creating a prototype through a specified sequence of operations in a data structure similar to that of Blowers. In addition, Weinhofer further teaches motion control operation and functionality to move an object through graphical programming (Col. 3, line 63 et seq. and Fig. 3). It would have been obvious to one of ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the time the invention was made, to modify the machine vision and data acquisition operations and functionality controlled by a GUI through a user specified sequence of operations in a data structure taught by Blowers to include the motion control operation and functionality of Weinhofer, in order to obtain a graphical programming interface for machine vision, data acquisition and motion control. One would have been motivated to make such a combination because an all-purpose graphical automotive controller would have been obtained, as taught by Weinhofer.

As in Claims 10, 51 and 67, Blowers teaches performing the sequence of operations by executing software routines in order to perform each operation in the sequence (Col. 4, line 64 et seq.).

As in Claim 11, Blowers teaches creating program instructions executable to perform the sequence of operations; executing the program instructions (Col. 2, line 47 et seq.),

As in Claim 12, Blowers teaches configuring a first operation in the sequence in response to user input specifying configuration information for the first operation, which changes a function performed by the first operation, displaying information in response to user input specifying the configuration information to visually indicate the change in the function performed by the first operation (Col. 9, lines 1-10, Col. 11, line 15).

As in Claim 13, Blowers teaches wherein user input specifying configuration information for the first operation does not include user input specifying program code (Col. 3, lines 64-65).

As in Claim 14, Blowers teaches displaying a graphical panel including graphical user interface elements for setting properties of the first operation and the user input to the graphical panel to set one or more properties of the first operation (Figures 5-7 with corresponding text).

As in Claim 15, Blowers teaches the graphical panel is automatically displayed in response to including the first operation in the sequence (Col. 9, line 7 et seq. and Col. 12, lines 8-10).

As in Claim 16, Blowers teaches receiving user input requesting to configure the first operation, user input to the a graphical panel for configuring the first operation in response to the request (Col. 8, line 61 et seq.).

As in Claim 17, Blowers teaches the graphical user interface includes an area which visually represents the operations in the sequence (Figure 7 and corresponding text); wherein the method further comprises: for each operation included in the sequence, updating the area usually representing the operations in the sequence to illustrate the included operation in response to user input selecting operation from the GUI (simple drag-drop functionality, Col. 8, line 61 et seq.).

As in Claim 18, Blowers teaches the area visually representing the operations in the sequence displays icons (Figure 7 and corresponding text), wherein each icon visually indicates one of the operations in the Sequence (Col. 8, lines 64-66); wherein said updating the area visually representing the operations in the sequence to illustrate the included operation comprises displaying a new icon to visually indicate the included operation (simple drag-drop functionality, Col. 8, line 61 et seq.).

As in Claim 19, Blowers teaches the graphical user interface displays buttons, wherein each button corresponds to a particular operation and is operable to add the operation to the sequence in response to user input selecting a button; including the operations in the sequence in response to user input selecting a buttons from the plurality of buttons (Col. 12, lines 48-52 and Figure 5-7 with corresponding text).

As in Claim 20, While Blowers teaches machine vision and data acquisition operations controlled by a GUI through a user specified sequence of operations in a

data structure, they fail to show the motion control functionality with a motion control operation as recited in the claims. In the same field of the invention, Weinhofer teaches a graphical interface for creating a prototype through a specified sequence of operations in a data structure similar to that of Blowers. In addition, Weinhofer further teaches motion control operation and functionality through graphical programming (Col. 3, line 63 et seq. and Fig. 3) including a straight line move operation (Col. 6, lines 44 et seq.). It would have been obvious to one of ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the time the invention was made, to modify the machine vision and data acquisition operations and functionality controlled by a GUI through a user specified sequence of operations in a data structure taught by Blowers to include the motion control operation and functionality including a straight line move operation of Weinhofer, in order to obtain a graphical programming interface for machine vision, data acquisition and motion control including a straight line move operation. One would have been motivated to make such a combination because an all-purpose graphical automotive controller would have been obtained, as taught by Weinhofer.

As in Claims 24, 52 and 68, Blowers teaches automatically generating a graphical program based on the sequence of operations executable to perform the sequence of operations, a plurality of interconnected nodes ("developing a graphical, control flow structure such as a tree structure", Col. 3, lines 15-16) that visually indicate functionality of the graphical program (Col. 8, line 49 et seq.) and automatically

including the nodes without specifying user input of the nodes (Col. 3). (Col. 8, line 61 et seq.).

As in Claim 26, Blowers teaches the graphical program comprises a graphical data flow program (Col. 3, lines 14-35 and Col. 11, line 15) wherein the plurality of interconnected nodes ("developing a graphical, control flow structure such as a tree structure", Col. 3, lines 15-16) visually indicates data flow among the nodes (Col. 8, line 49 et seq.).

As in Claim 27, Blowers teaches automatically generating a text-based program based on the sequence of operations, executable to perform the specified sequence of operations; wherein the text-based program comprises lines of textual source code, wherein automatically generating the text based program comprises automatically including the lines of textual source code in the text-based program without user input specifying the lines of textual source code (Col. 3, lines 15-45, Col. 8, line 61 et seq.).

As in Claim 28, Blowers teaches displaying a first application GUI, creating the sequences comprises the first application creating the sequence, the first application receiving a request to invoke execution of the sequence from a second program external to the first application (Fig. 3 and corresponding text), the first application executing the sequence of operations in response to the request (Col. 11, lines 58-61) from the second program by invoking software routines (Col. 9, line 7 et seq.).

As in Claim 29, Blowers teaches automatically converting the sequence of operations to a hardware configuration format usable for configuring hardware of an embedded device to perform the sequence of operations and configuring the hardware

of the embedded device to perform the sequence of operations using the hardware configuration format (Col. 2, line 47 et seq.).

As in Claim 32, Blowers teaches storing information representing the sequence of operations in a data structure (See Claim 1 rejection supra).

As in Claim 33, Blowers teaches the information representing the sequence of operations in the data structure does not comprise program code (Col. 3, line 64 et seq.).

As in Claim 34, Blowers teaches accessing the data structure to determine operations in the sequence and determining software routines to execute in order to perform the operations in the sequence and executing the software routines (Col. 8, line 61 et seq.).

As in Claims 69, 73, 76 and 78, Blowers teaches displaying a visual indication of results of performing the sequence while the sequence is being created, wherein the visual indication enables a user to evaluate the results of performing the sequence, wherein interactively displaying the visual indication comprises: for each operation in at least a subset of the operations included in the sequence, updating the displayed visual indication in response to including the operation in the sequence in order to visually indicate a change in the results of performing the sequence (Col. 4, lines 46 et seq.), wherein the change is caused by including the operation in the sequence, wherein updating the displayed visual indication provides interactive visual feedback to the user indicating the change caused by including the operation in the sequence (rejection of Claim 12 *supra*).

As in Claim 71, Blowers and Weinhofer discloses automatically converting the sequence of operations to a hardware configuration format. Blowers and Weinhofer fails to explicitly teach configuring the FPGA device to perform the sequence of operations using the hardware configuration format. as recited in the claims. Within the field of the invention, it would be obvious to one of ordinary skill in the art to program a removable device like a FPGA. One would have been motivated to make such a combination because a removable hardware device for executing sequenced instructions would have been obtained.

As in Claim 72, Weinhofer teaches controlling the DAQ measurement device to acquire waveform data of the device under test (fig. 2, 6 and corresponding text).

6. Claims 21-23, 70, 74-75, 77, 79 and 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blowers et al., US Patent 6298474, herinafter Blowers, and further in view of Weinhofer, US Patent 6442442.

Blowers and Weinhofer teach the disclosed claimed subject matter of Claims 1, 30, 36, 37, 43, 45 and 61.

As in Claims 21, 70, 74-75, 77, 79 and 80-81, While Blowers and Weinhofer teach machine vision and data acquisition operations controlled by a GUI through a user specified sequence of operations in a data structure, the sequence including a motion control operation (Weinhofer Col. 6, lines 39-41), and further comprising displaying a view of the motion control performed by the motion control operations in the sequence on the graphical user interface (Weinhofer Col. 3, line 63 et seq.), wherein the

view graphically previews the cumulative movement specified by the motion control operations in the sequence (Weinhofer Fig. 3 and corresponding text), they fail to show the graph illustrating spatial trajectory cumulatively performed by the motion control operations as recited in the claims. In the same field of the invention, Wolfson teaches a graphical interface for creating a prototype through operations in a data structure similar to that of Blowers and Weinhofer. In addition, Wolfson further teaches graph illustrating spatial trajectory cumulatively performed by the motion control operations (Fig. 4 and corresponding text). It would have been obvious to one of ordinary skill in the art, having the teachings of Blowers and Weinhofer before him at the time the invention was made, to modify a graphical programming interface for machine vision, data acquisition and motion control including a straight line move operation taught by Blowers and Weinhofer to include teaches graph illustrating spatial trajectory cumulatively performed by the motion control operations of Wolfson, in order to obtain a machine vision, data acquisition and motion control sequenced control program including a graph illustrating spatial trajectory cumulatively performed by the motion control operations. One would have been motivated to make such a combination because a more accurate visual representation could be displayed, as taught by Wolfson.

As in Claim 22, Blowers teaches a two-dimensional position view for viewing a two-dimensional display of position data of the sequence in one or more of an XY, YZ, or ZX plane (Fig. 8 and corresponding text).

As in Claim 23, Wolfson teaches a three-dimensional position view for viewing a three-dimensional display of position data of the sequence (Fig. 4 and corresponding text).

Response to Arguments

Applicant's arguments filed 7/24/06 have been fully considered but they are not persuasive.

In response to the arguments that Blowers fails to teach DAQ functionality and a GUI with a DAQ operation, the examiner disagrees. Data Acquisition is a broad term and is taught by the prior art. Furthermore, the applicants claim that Blowers fails to teach "a measurement application involving data acquisition from a DAQ device". The camera can acquire data and in combination with software can take measurements. This is clearly shown by Blowers starting Col. 11, line 65 along with the Caliper tool 63, which finds edges used to calculate measurements which can be seen as a DAQ operation. The input images are acquired from the DAQ device, or camera, and then the measurement application takes measurements during image analysis.

In response to applicant's argument that Blowers does not disclose the term "DAQ" or "Data Acquisition" the examiner notes the Blowers operates as a device that acquires data, and therefore can be read as Data Acquisition.

In response to applicant's arguments regarding Claim 58, the examiner disagrees. The system of Blowers clearly teaches the system acquiring measurement data of a device under test. Claim 58 states: The prototype is operable control an

image acquisition device to acquire an image of the device under test; and control a data acquisition measurement device to acquire measurement data of the device under test (the *software* for the camera acquires an image of the device, and makes measurements via the caliper tool on the computer, Fig. 3). The camera software functions in the same way as the stated claims.

In response to applicant's arguments regarding Claim 60, the examiner disagrees. Col. 3, line 64 of Blowers states "generate/"teach" a machine vision computer program without having to write any code". In such a manner the graphical program can be automatically generated without the user specifying the specific nodes once it has be taught.

In response to applicant's arguments beginning on page 33 of the submitted remarks, the examiner notes that the rejection does not rely on Weinhofer to teach the following limitation "including at lease one motion control operation in a sequence without receiving user input specifying program code for performing the plurality of operations".

In response to applicant's argument that Blowers and Weinhofer are not combinable, the examiner disagrees. Blowers and Weinhofer both acquire data and control systems via a sequential programming method and therefore are both in the field of the applicant's endeavor. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one

of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Weinhofer explains how motion controllers are part of many industrial control systems including programmable controller systems (Col. 1, line 48) and therefore can be interpreted as a control system for many different purposes and that it would be advantageous to use Weinhofer along with such other systems. Blowers teaches such a system in it's programmable controller system. Weinhofer further explains how motion control systems have become more complex, and that in order to make the system more flexible, it would be advantageous to use something other than a sequential programming language, (Col. 2, line 57- Col. 3, line 25) like a sequential program as taught by both Blowers (Col. 4, line 65 et seq.) and Weinhofer (Col. 6, line 64). While Weinhofer does not explicitly state the exact terminology of the graphical automotive controller to be all-purpose, the above recitations of Weinhofer show that it may be used in plethora of systems like the one used in Blowers.

In response to the applicants arguments regarding Claim 29, the examiner disagrees. The control software of Blowers operates to control the camera's course of operation and perform the sequence of operations using the hardware configuration format (as referenced *supra).*

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach similar motion control, machine vision, and data acquisition programming interfaces.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara M. Hanne whose telephone number is (571) 272-4135. The examiner can normally be reached on M-F 7:30am-4:00pm, off on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WEILUN LO can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

smh